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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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PATRICK TEO

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EXAMINER

LEE, RICHARD J

ART UNIT

PAPER NUMBER

2621

DATE MAILED: 06/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/378,398

Applicant(s)

TEO, PATRICK

Examiner

Richard Lee

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 2/7/06 and 3/15/06.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16, 18-37 and 123-154 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16, 18-37 and 123-154 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 145-154 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The “article” as currently claimed in claims 145-154, respectively, constitutes as new matter since the Specification lacks any disclosure of the “article” to meet the written description requirement. As such, the Specification also lacks any support for the “article” as claimed.

3. Claims 145-154 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

For examples:

(1) claims 145-154, the “article” as respectively claimed is considered indefinite since the metes and bounds of the claim have not been clearly set forth (See above paragraph (2)); and

(2) claim 145, line 2, the phrase “if executed” as claimed is vague and indefinite in that it does not show positive recitation and as such the metes and bounds of the claim are not clearly set forth.

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claims 145-154 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The particular features of the “article comprising a storage medium having stored thereon instructions” as claimed in claim 145 can be construed as a handwritten or printed matter not falling within the statutory classes set forth in 35 U.S.C. 101. Even if claims 145-154 are considered a computer program claim, the claims are viewed only as an abstract idea without a practical application showing any useful, concrete, and tangible results as required to fall within the statutory classes set forth in 35 U.S.C. 101. The acquiring, converting, and displaying features as claimed in claim 145 constitute only as descriptions or expressions that are not physical “things”. They are neither computer components nor statutory processes, as they are not “acts” being performed. For the above reasons, claims 145-154 as a whole do not fall within the statutory classes set forth in 35 U.S.C. 101.

In contrast, a claimed computer readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program’s functionality to be realized, and is thus statutory.

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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7. Claims 1-12, 14, 15, 20, 23-27, 31, 123-126, 131, 135-137, 139, 141, 145-147, 149, and 151 are rejected under 35 U.S.C. 103(a) as being unpatentable over Egawa of record (5,138,460) in view of Kang et al of record (6,256,058).

Egawa discloses an apparatus for forming composite images as shown in Figures 1-4, 6, 10, and 12, and substantially the same camera, method, system, and article comprising a storage medium having stored thereon instructions as claimed in claims 1-12, 14, 15, 20, 23-27, 31, 123-126, 131, 135-137, 139, 141, 145-147, 149, and 151, comprising substantially the same camera lens (6 of Figure 1 and see column 2, lines 64-68); acquisition circuitry (see Figure 2) capable of receiving images via the camera lens, capable of acquiring a first field of view if the camera lens is in a first orientation and capable of acquiring a second field of view if the camera lens is in a second orientation (i.e., n TH frame of Figure 3(a) represents the first field of view, $(n+1)$ TH frame of Figure 3(a) represents the second field of view, see Figures 2, 3(a), 3(b), and column 2, line 60 to column 3, line 59); compositing the at least a portion of the first and second images and displaying the at least a portion of the first and second images (see Figures 3(a) and 3(b), and columns 3-4); a viewfinder (i.e., FINDER of Figures 3(a), 3(b), 6(a)-6(e), and see column 3, lines 35-59) displaying the second field of view if the camera lens is in the second orientation and displaying at least a portion of the first field of view at least partially composited with the second field of view, the second field of view at least partially overlaps the first field of view (see column 7, lines 15-24); wherein a size of the at least a portion of the first field of view is cable of being prescribed relative to a size of the first field of view, the size of the at least a portion of the first field of view is capable of being prescribed relative to a size of the second field of view, the size of the at least a portion of the first field of view comprises its width, and

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the size of the second field of view comprises its width, the size of the at least a portion of the first field of view comprises its height, and the size of the second field of view comprises its height, the size of the at least a portion of the first field of view comprises the field of view angle it subtends, and the size of the second field of view comprises the field of view angle it subtends (see Figures 3(a), 3(b), 6(a) to 6(c), column 3, line 35 to column 4, line 39); wherein the focus of the camera lens is capable of being not changed during acquisition of the first and second and at least one additional fields of view (see column 2, line 60 to column 3, line 59, column 7, lines 6-14); combining circuitry capable of combining the first and second fields of view, wherein the first and second fields of view comprise portions of a scene and wherein the combining circuitry is capable of combining the first and second fields of view into a panoramic image of the scene (see column 3, lines 35-59); view control circuitry capable of selecting a portion of the panoramic image to display, and wherein the viewfinder is capable of displaying the selected portion of the panoramic image (see column 7, lines 6-14); wherein the acquisition circuitry is capable of acquiring at least one additional field of view (i.e., (n-1)TH or (n-2)TH frame of Figure 10) with the camera lens being in at least one additional orientation, and wherein the viewfinder is capable of displaying an additional field of view of the camera lens when the camera lens is in each additional orientation and is capable of displaying at least a portion of at least one previously acquired field of view at least partially composited with the additional field of view, wherein each additional field of view is capable of at least partially overlapping the at least one previously acquired field of view (see FINDER of Figure 10, and column 7, lines 6-33); and perspective conversion circuitry capable of converting a perspective of the at least a portion of the first field of view from the first orientation to the second orientation (i.e., the hatched

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portion of the first field of view (nTH frame) of Figures 3(a) and 3(b) represents the portion of the first field of view that is converted from a first orientation (within nTH frame) to a second orientation (within FINDER), see column 3, lines 35-59).

Egawa does not particularly disclose, though, the followings:

(a) rectilinear to cylindrical conversion circuitry capable of converting the first and second fields of view from rectilinear coordinates to cylindrical coordinates, converting at least a portion of the first and second images from rectilinear to cylindrical view based at least in part upon a conversion from rectilinear to cylindrical coordinates, displaying the converted view, and displaying at least a portion of the first and second images claimed in claims 17, 123, 125, 135, 137, 145, and 147;

(b) wherein the size of the at least a portion of the first field of view is capable of being prescribed to an amount between 20% and 40% of the size of the second field of view, wherein the at least a portion of the first field of view is capable of being composited with the second field of view by an opacity of approximately 50%, and wherein the at least a portion of the first field of view is capable of being composited with the second field of view by an opacity of approximately 100% as claimed in claims 9-11; and

(c) wherein the at least a portion of the at least one previously acquired field of view is capable of being composited with the additional field of view by an opacity of approximately 50% and wherein the at least a portion of the at least one previously acquired field of view is composited with the additional field of view by an opacity of approximately 100% as claimed in claims 25 and 26.

Regarding (a), the particular conversion of rectilinear coordinates to cylindrical coordinates and vice versa for images, in general, is old and well recognized in the art, as exemplified by Kang et al (see column 3, line 65 to column 4, line 7, column 4, lines 25-30, column 5, lines 6-60). Kang et al also teaches the conventional display of the converted view, and displaying at least a portion of the first and second images (see Figure 2 and column 3, line 65 to column 4, line 7). Therefore, it would have been obvious to one of ordinary skill in the art, having the Egawa and Kang et al references in front of him/her and the general knowledge of rectilinear and cylindrical coordinate systems and the associated conversions between the coordinate systems as well as the display of the converted view, would have had no difficulty in providing the rectilinear to cylindrical conversion circuitry with converted view display of the first and second images as taught by Kang et al for the panoramic images of Egawa for the same well known cylindrical and rectilinear coordinate compliance purposes as claimed.

Regarding (b) and (c), it is noted that Egawa does teach as shown in Figures 6(a) to 6(b) the particular varying of the size or area of the display of fields of views (see column 4, lines 25-39). Egawa is however silent as to the specific percentages of displays for the respective fields of views as claimed. Without specific criticality and since Egawa teaches the desire to vary the range of the size of display fields within a panoramic setting, the specific percentage of displays for the respective fields of views as claimed are considered only a matter of choice by one of ordinary skill in the art. In addition, it is considered obvious to provide the field of view display percentages since these values are merely optimum or workable ranges, and it is not invention to discover the optimum or workable ranges through routine experimentation. This opinion/view is supported by In re Aller, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955). Therefore, it

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would have been obvious to one of ordinary skill in the art, having the Egawa reference in front of him/her and the general knowledge of the image formatting and compositing of images for panoramic display, would have had no difficulty in using the teachings of Egawa involving the varying of the size or area of display fields of view to provide the size of the at least a portion of the first field of view prescribed to an amount between 20% and 40% of the size of the second field of view, the compositing of the first field of view with the second field of view by an opacity of 50% or 100%, and the compositing of the previously acquired field of view with the additional field of view by an opacity of 50% or 100%, since such percentages are only a matter of choice for the same well known different image formatting and desired overlapping region of images for panoramic displaying purposes as claimed.

8. Claims 13 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Egawa and Kang et al as applied to claims 1-12, 14, 15, 20, 23-27, 31, 123-126, 131, 135-137, 139, 141, 145-147, 149, and 151 in the above paragraph (7), and further in view of Inoue of record (6,144,804).

Egawa and Kang et al discloses substantially the same camera, method, system, and article comprising a storage medium having stored thereon instructions as above, but does not particularly disclose a lens focus lock capable of locking the focus of the camera lens during acquisition of the first and second and the at least one additional fields of view as claimed in claims 13 and 28. However, Inoue discloses a camera with visual line detection capability and teaches the conventional use of a camera with focus lock features (see column 4, lines 39-45). Therefore, it would have been obvious to one of ordinary skill in the art, having the Egawa, Kang et al, and Inoue references in front of him/her and the general knowledge of camera focussing

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features, would have had no difficulty in providing the lens focus lock feature as taught by Inoue for the camera of Egawa for the same well known fixed focussing of images purposes as claimed.

9. Claims 16, 18, 21, 35-37, 127, 128, 130, 140, and 150 are rejected under 35 U.S.C. 103(a) as being unpatentable over Egawa and Kang et al as applied to claims 1-12, 14, 15, 20, 23-27, 31, 123-126, 131, 135-137, 139, 141, 145-147, 149, and 151 in the above paragraph (7), and further in view of Dunton et al of record (6,304,284).

The combination of Egawa and Kang et al discloses substantially the same camera, method, system, and article comprising a storage medium having stored thereon instructions, further including the camera comprising cylindrical to rectilinear conversion circuitry capable of converting the selected portion of the panoramic image from cylindrical coordinates to rectilinear coordinates (see column 3, line 65 to column 4, line 7, column 4, lines 25-30, column 5, lines 6-60 of Kang et al).

The combination of Egawa and Kang et al does not particularly disclose, though, the followings:

(a) wherein the panoramic image comprises a cylindrical and spherical geometry as claimed in claims 16, 18, 127, and 128;

(b) an indicator capable of indicating when the camera lens is in the second orientation, the indicator comprises a light source, and the indicator comprises a beeper as claimed in claims 35-37;

(c) wherein the panoramic image comprises a cylindrical geometry as claimed in claims 21, 130, 140, and 150.

Regarding (a) and (b), Dunton et al discloses a method and apparatus for creating panoramic or surround images using a motion sensor equipped camera as shown in Figures 1A and 5, and teaches the conventional cylindrical and spherical format recording of panoramic images (see column 5, line 49 to column 6, line 19), and the particular use of verbal and/or visual indicators such as the display of arrows in a LCD for moving the camera into the proper orientation so as to capture and acquire the proper amount of overlap between images for panoramic image display (see 516 of Figure 5 and column 8, lines 7-62). Therefore, it would have been obvious to one of ordinary skill in the art, having the Egawa, Kang et al, and Dunton et al references in front of him/her and the general knowledge of panoramic image displays, would have had no difficulty in providing the cylindrical and spherical geometry format of panoramic images as well as visual and verbal indicators for indicating the proper orientations as taught by Dunton et al as part of the camera system within Figure 1 of Egawa for the same well known use of different formatting of images for selective display and use of prompts via visual and/or verbal forms for indicating the proper positioning of the camera for acquiring the desired images for producing a smooth connection of images for panoramic display purposes as claimed.

Regarding (c), Dunton et al teaches the conventional panoramic image comprising a cylindrical geometry (see column 5, lines 49-67). Therefore, it would have been obvious to one of ordinary skill in the art, having the Egawa, Kang et al, and Dunton references in front of him/her and the general knowledge of panoramic displays, would have had no difficulty in providing the cylindrical geometry panoramic image as the specific panoramic display within Egawa for the same well known panoramic display in the desired geometry purposes as claimed.

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10. Claims 19, 129, 138, and 148 are rejected under 35 U.S.C. 103(a) as being unpatentable over Egawa and Kang et al as applied to claims 1-12, 14, 15, 20, 23-27, 31, 123-126, 131, 135-137, 139, 141, 145-147, 149, and 151 in the above paragraph (7), and further in view of Dube et al of record (6,269,144).

Egawa and Kang et al discloses substantially the same camera, method, system, and article comprising a storage medium having stored thereon instructions as above, but does not particularly disclose rectilinear to spherical conversion circuitry capable of converting the first and second fields of view from rectilinear coordinates to spherical coordinates as claimed in claims 19, 129, 138, and 148. The particular conversion of rectilinear coordinates to spherical coordinates, in general, is old and well recognized in the art, as exemplified by Dube et al (see column 3, lines 33-46, column 24, lines 1-12). Therefore, it would have been obvious to one of ordinary skill in the art, having the Egawa, Kang et al, and Dube et al references in front of him/her and the general knowledge of rectilinear and spherical coordinate systems and the associated conversions between the coordinate systems, would have had no difficulty in providing the rectilinear to spherical conversion circuitry as taught by Dube et al for the panoramic images of Egawa et al for the same well known spherical and coordinate compliance purposes as claimed.

11. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Egawa, Kang et al, and Dunton et al as applied to claims 1-12, 14, 15, 19, 20, 23-27, 31, 123-126, 129, 131, 135-139, 141, 145-149, and 151 in the above paragraphs (7) and (10), and further in view of Dube et al of record (6,269,144).

The combination of Egawa, Kang et al, and Dunton et al discloses substantially the same camera, method, system, and article comprising a storage medium having stored thereon instructions as above, further including wherein the panoramic image comprises a spherical geometry (see column 6, lines 5-19 of Dunton et al).

The combination of Egawa, Kang et al, and Dunton et al does not particularly disclose, though, the camera comprising spherical to rectilinear conversion circuitry capable of converting the selected portion of the panoramic image from spherical coordinates to rectilinear coordinates as claimed in claim 22. The particular conversion of rectilinear coordinates to spherical coordinates, in general, is old and well recognized in the art, as exemplified by Dube et al (see column 3, lines 33-46, column 24, lines 1-12). And in view of such rectilinear to spherical conversion of Dube et al, it is consider obvious to provide the complementary spherical to rectilinear conversion of images as claimed. Therefore, it would have been obvious to one of ordinary skill in the art, having the Egawa, Kang et al, Dunton et al, and Dube et al references in front of him/her and the general knowledge of rectilinear and spherical coordinate systems and the associated conversions between the coordinate systems, would have had no difficulty in providing the spherical to rectilinear conversion circuitry as taught by Dube et al for the panoramic images of Egawa for the same well known rectilinear coordinate compliance purposes as claimed.

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12. Claims 29 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Egawa and Kang et al as applied to claims 1-12, 14, 15, 19, 20, 23-27, 31, 123-126, 129, 131, 135-139, 141, 145-149, and 151 in the above paragraph (7), and further in view of Anderson of record (6,657,667).

Egawa and Kang et al discloses substantially the same camera, method, system, and article comprising a storage medium having stored thereon instructions as above, but does not particularly disclose wherein the first and second and the at least one additional fields of view comprise portions of a scene and wherein the combining circuitry is capable of combining the first and second and the at least one additional fields of view into a panoramic image of the scene as claimed in claims 29 and 30. However, Anderson discloses a method and apparatus for capturing a multidimensional array of overlapping images for composite image generation as shown in Figures 1-3, 6A, 6B, and 9, and teaches the conventional combination of first (i.e., Image 1 of Figure 6B), second (i.e., Image 2 of Figure 6B), and at least one additional fields of view (i.e., Image 3 of Figure 6B) into a panoramic image of the scene (see Figures 6A, 6B, and column 6, lines 1-36). Therefore, it would have been obvious to one of ordinary skill in the art, having the Egawa, Kang et al, and Anderson references in front of him/her and the general knowledge of the combining of images for panoramic production, would have had no difficulty in providing the combination circuitry as taught by Anderson for combining the first, second, and additional fields of view of Egawa for the same well known capturing and combining of images so as to produce a panoramic image of a scene purposes as claimed.

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13. Claims 32, 33, 132, 133, 142, 143, 152, and 153 are rejected under 35 U.S.C. 103(a) as being unpatentable over Egawa and Kang et al as applied to claims 1-12, 14, 15, 19, 20, 23-27, 31, 123-126, 129, 131, 135-139, 141, 145-149, and 151 in the above paragraph (7), and further in view of Truc et al of record (6,268,936).

Egawa and Kang et al discloses substantially the same camera, method, system, and article comprising a storage medium having stored thereon instructions as above, but does not particularly disclose perspective conversion circuitry comprises line processing circuitry capable of determining modified color values at pixel locations within vertical lines of the converted at least a portion of the first image/field of view, wherein the line processing circuitry is capable of determining modified color values at pixel locations within vertical lines of the converted at least a portion of the first image/field of view based at least in part on unmodified color values at a corresponding vertical line of the at least a portion of the first image/field of view as claimed in claims 32, 33, 132, 133, 142, 143, 152, and 153. However, Truc et al discloses a film scanner as shown in Figure 8 and teaches the conventional modification of colors associated with panoramic and photographic images (see column 5, lines 25-36, column 7, lines 26-40). Therefore, it would have been obvious to one of ordinary skill in the art, having the Egawa, Kang et al, and Truc et al references in front of him/her and the general knowledge of color modification of images, would have had no difficulty in providing the color modification of images as taught by Truc et al for the panoramic images of Egawa for the same well known color enhancement purposes as claimed.

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14. Claims 34, 134, 144, and 154 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Egawa, Kang et al, and Truc et al as applied to claims 1-12, 14, 15, 19, 20, 23-27, 31-33, 123-126, 129, 131-133, 135-139, 141-143, 145-149, and 151-153 in the above paragraphs (7) and (13), and further in view of Yui et al of record (US 2002/0175924 A1).

Egawa, Kang et al, and Truc et al discloses substantially the same camera, method, system, and article comprising a storage medium having stored thereon instructions as above, but does not particularly disclose wherein the line processing circuitry is capable of re-scaling vertical lines of the at least a portion of the first image/field of view as claimed in claims 34, 134, 144, and 154. However, Yui et al discloses an image display system as shown in Figure 1, and teaches the particular re-scaling of vertical lines of images (see page 2, section [0026]).

Therefore, it would have been obvious to one of ordinary skill in the art, having the Egawa, Kang et al, Truc et al, and Yui et al references in front of him/her and the general knowledge of image re-scalings, would have had no difficulty in providing the vertical line image re-scaling as taught by Yui et al for the panoramic images of Egawa for the same well known re-scaling of original image data purposes as claimed.

15. Regarding the applicant's arguments at pages 11-18 of the amendment filed February 7, 2006 concerning in general that the "a rectilinear to cylindrical conversion circuitry for converting the first and second fields of view from rectilinear coordinates to cylindrical coordinates" as currently amended in claim 1 is not anticipated nor rendered obvious in view of the applied references, the Examiner respectfully disagrees. The applicant's attention is directed to column 3, line 65 to column 4, line 7 and column 5, lines 6-60 of Kang et al for the particular teachings of a rectilinear to cylindrical image conversion system in obtaining cylindrical images

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thereby representing the cylindrical coordinates as claimed. It is therefore submitted that the claimed invention is rendered obvious in view of the combination of Egawa and Kang et al.

16. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard Lee whose telephone number is (571) 272-7333. The Examiner can normally be reached on Monday to Friday from 8:00 a.m. to 5:30 p.m., with alternate Fridays off.


RICHARD LEE
PRIMARY EXAMINER

Richard Lee/rl

6/9/06

